

3R - 315

REPORTS

DATE:

1998

Public Service Company
of New Mexico
Alvarado Square MS 0408
Albuquerque, NM 87158

April 2, 1998

Mr. William Olson
Hydrogeologist
Oil Conservation Division
2040 So. Pacheco
Santa Fe, New Mexico 87505

RECEIVED
APR 3 1998
Oil Conservation Bureau
Oil Conservation Division



RE: 1998 SAN JUAN BASIN ANNUAL GROUNDWATER REPORT

Dear Bill:

PNM is pleased to submit the 1998 Annual Groundwater Report on Unlined Surface Impoundments in the San Juan Basin. Pursuant to PNM's Groundwater Management Program for Unlined Surface Impoundment Closures, the report details the ongoing investigation/remedial activities at unlined surface impoundments having groundwater contamination as identified by PNM. A list of groundwater sites reported in this document is provided below.

Cozzens B1
Dogie Compressor Station East Pit
Dogie Compressor Station North Pit
Florance 32A
Florance Z 40 M
Florance 44
Florance 47X
Florance 124
Hampton 4M
Honolulu Loop Line Drip
Ice Canyon Drip
Jacques 2A
Mangum 1E
McClanahan 22
McClanahan A2E
McCoy Gas Com A1
Miles Federal 1E
Miles Federal 1E Drip
Randleman 1
Reid 16 Drip
Sammons 2
Turner 1A
Turner 3
Zachry 18E

PNM 1998 Groundwater Report

PNM plans to request closure of two of the above sites, the Cozzens B1 and the Sammons 2, in our April 30, 1998 filing of the San Juan Pit Closure Reports to the OCD Santa Fe office. If you have any questions regarding the contents of the report, please contact me at (505) 241-2974.

Sincerely,



Maureen Gannon
Project Manager

Attachment

cc: Ingrid Deklau, WFS
Denny Foust, OCD-Aztec Office
Bill VonDrehle, WFS

PNM 1998 Groundwater Report

bcc: Colin Adams (w/o analytical results)
Kathy Juckes
Ron Johnson (w/o analytical results)
Mark Sikelianos

Groundwater Site Summary Report

Quarter/Year: 2nd/97, 3rd/97, 4th/97 and 1st/98

Copies: WFS(1)
Operator (1)
NMOCD District Office (1)
NMOCD Santa Fe (1)

Operator: Amoco
Sec: 21 **Twn:** 30N **Rng:** 08W **Unit:** G
Canyon: Gobernador

Vulnerable Class: Original
OCD Ranking: 20
Lead Agency: NMOCD

PNM is preparing a site summary report for submittal to the OCD detailing the activities, results and further actions at the Florance Z 40 M under separate cover. The report is titled, "Florance Z 40 M Free Product and Groundwater Contamination," and will be submitted to the OCD by April 30, 1998.

Public Service Company of New Mexico - Gas Services
Environmental Services Division - Alvarado Square, MS-0408
Albuquerque, NM 87158

Contact: Maureen Gannon

Telephone: 505-241-2974

OFF: (505) 325-5667



LAB: (505) 325-1556

12 June 1997

*Denver Bearden
PNM Gas Services
603 W. Elm Street
Farmington, NM 87401*

Reference:

*Project Name: Florance 40
Project Loc.: 970508; MW-1, MW-3, MW-4, MW-5
On Site ID: COC Record No. 5553*

Dear Denver,

Enclosed please find the analytical results for your project referenced above. Please note that the PAH EPA 8310 analysis for MW-1 was not performed due to a shipping error. Attached you will find a Sample Protocol Nonconformance Worksheet from Southern Petroleum Laboratory (SPL) stating sample condition upon receipt. UPS did not deliver via next day service and subsequently by the time the samples arrived at SPL all ice had been spent. On Site Technologies will cover all costs incurred for the re-analysis of PAH EPA 8310 for MW-1.

We trust you will find all in order and should you have any questions regarding these results please contact me at any time. (505) 325-2432.

Thank you once again for your consideration.

Sincerely,

*David Cox
Laboratory Manager*

cc: Maureen Gannon, PNM Gas Services

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *20-May-97*
COC No.: *5553*
Sample No.: *14646*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Florance 40*
Project Location: *Trip Blank*
Sampled by: *MG/MS* Date: _____ NR Time: _____
Analyzed by: *DC* Date: *16-May-97*
Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/L	0.2	ug/L
<i>Toluene</i>	ND	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	ND	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	ND	ug/L	0.2	ug/L
<i>o-Xylene</i>	ND	ug/L	0.2	ug/L
<i>TOTAL</i>	ND	ug/L		

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved By: *[Signature]*
Date: *5/20/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *20-May-97*
COC No.: *5553*
Sample No.: *14501*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Florance 40*
Project Location: *9705081330; MW-1*
Sampled by: *MG/MS*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *8-May-97* Time: *13:30*
Date: *16-May-97*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	<i>3643</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>Toluene</i>	<i>11525</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>1097</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>12661</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>3344</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>32270</i>	<i>ug/L</i>		

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved By: *[Signature]*
Date: *5/20/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *20-May-97*
COC No.: *5553*
Sample No.: *14502*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Florance 40*
Project Location: *9705081430; MW-3*
Sampled by: *MG/MS*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *8-May-97* Time: *14:30*
Date: *16-May-97*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	<i>97</i>	<i>ug/L</i>	<i>2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>27</i>	<i>ug/L</i>	<i>2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>115</i>	<i>ug/L</i>	<i>2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>266</i>	<i>ug/L</i>	<i>2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>36</i>	<i>ug/L</i>	<i>2</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>542</i>	<i>ug/L</i>		

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved By: *[Signature]*
Date: *5/20/97*

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *20-May-97*
COC No.: *5553*
Sample No.: *14503*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Florance 40*
Project Location: *9705081500; MW-4*
Sampled by: *MG/MS* Date: *8-May-97* Time: *15:00*
Analyzed by: *DC* Date: *16-May-97*
Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/L	0.2	ug/L
<i>Toluene</i>	0.3	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	ND	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	0.5	ug/L	0.2	ug/L
<i>o-Xylene</i>	ND	ug/L	0.2	ug/L
<i>TOTAL</i>	0.8	ug/L		

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved By: *[Signature]*
Date: *5/20/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *20-May-97*
COC No.: *5553*
Sample No.: *14504*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Florance 40*
Project Location: *9705081530; MW-5*
Sampled by: *MG/MS* Date: *8-May-97* Time: *15:30*
Analyzed by: *DC* Date: *16-May-97*
Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/L	0.2	ug/L
<i>Toluene</i>	0.3	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	ND	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	0.4	ug/L	0.2	ug/L
<i>o-Xylene</i>	ND	ug/L	0.2	ug/L
<i>TOTAL</i>	0.6	ug/L		

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography

Approved By: *[Signature]*
Date: *5/20/97*

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 16-May-97

Internal QC No.: 0527-STD

Surrogate QC No.: 0528-STD

Reference Standard QC No.: 0529/30-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	18.3	9	15%
Toluene	ppb	20.0	19.0	5	15%
Ethylbenzene	ppb	20.0	19.3	4	15%
m,p-Xylene	ppb	40.0	37.1	7	15%
o-Xylene	ppb	20.0	19.3	4	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	90	87	(39-150)	2	20%
Toluene	93	90	(46-148)	2	20%
Ethylbenzene	92	89	(32-160)	2	20%
m,p-Xylene	90	87	(35-145)	2	20%
o-Xylene	93	90	(35-145)	2	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
14646-5553	95				
14501-5553	94				
14502-5553	94				
14503-5553	95				
14504-5553	95				

S1: Fluorobenzene

(m)
5/20/97

San Protocol Nonconformance Worksheet

RECEIVED JUN 09 1997

Prepared by: <u>S. West</u>	Date/Time:
Client: <u>On Site Analytical</u>	SPL W/O #:
Submitted to: <u>EF</u>	Samples Logged In? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

Matrix: ☐ SOIL ☒ WATER ☐ AIR ☐ OTHER
Samples Affected: ☒ ALL ☐ Partial (See description)

Description of non-conformance: Sample were in login at 9:00am 5/13/97
@ ambient temperature

Condition	Information	Container
<input checked="" type="checkbox"/> Temp > 6C	<input type="checkbox"/> No collected date	<input type="checkbox"/> Damaged containers
<input type="checkbox"/> Expired Hold Time	<input type="checkbox"/> No COC	<input type="checkbox"/> Improper containers
<input type="checkbox"/> Headspace	<input type="checkbox"/> Samples not labeled	<input type="checkbox"/> Non-SPL containers
<input type="checkbox"/> Unpreserved	<input type="checkbox"/> Sample v. COC ID disagreement	<input type="checkbox"/> Insufficient containers
<input type="checkbox"/> Improperly preserved	<input type="checkbox"/> Container v. COC disagreement	<input type="checkbox"/> Sample not on COC
<input type="checkbox"/> Insufficient Sample	<input type="checkbox"/> Method not specified or not listed	<input type="checkbox"/> Sample not received

Client Name Contacted:	Date / Time:
Phone:	Action: <input type="checkbox"/> Complete Login <input type="checkbox"/> HOLD

Client Instructions:

Dave - Hyle is the COC' you
requested

Comments:

Project Manager Signature

Date / Time

COPIES TO:

☐

File

☐

Project Manager

☐

Area Supervisor

☐

QA

rev. 3/95:jja

ON SITE

CHAIN OF CUSTODY RECORD

6356

TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: _____

Page _____ of _____

Purchase Order No.:		Job No.		REPORT RESULTS TO	Name <u>DAVE COX</u>		Title		
SEND INVOICE TO	Name		Company <u>ON SITE TECH.</u>		Mailing Address <u>612 E. MURRAY DR.</u>				
	Company		Dept.		City, State, Zip <u>FARMINGTON, NM 87401</u>				
	Address				Telephone No. <u>505-325-5667</u>		Telefax No. <u>505-325-6256</u>		
	City, State, Zip								
Sampling Location: <u>FLORANGE 40 / JACQUES ZA</u>				Number of Containers	ANALYSIS REQUESTED				
Sampler:									
SAMPLE IDENTIFICATION		SAMPLE			MATRIX		PRES.		
		DATE	TIME				LAB ID		
<u>FLORANGE 40, 14501-5553</u>		<u>5/8/97</u>	<u>13:30</u>						
<u>JACQUES ZA, 14506-5554</u>		<u>"</u>	<u>11:00</u>						
* SAMPLES RECEIVED BY SPL, HOUSTON ON MONDAY 5/12/97 - AIR-BUILT TEMP									
SAMPLES SHIPPED 5/8/97 VIA UPS NEXT DAY AIR FRI 5/8/97 DELIVERY									
DID NOT MAKE IT DUE TO COOLER SITTING IN KENTUCKY WAREHOUSE									
FRIDAY. UPS RESPONSIBLE FOR ALL COSTS INVOLVED. (B)									
				<u>5/13/97</u>					
Relinquished by: <u>Heidi Rees</u>		Date/Time <u>5/8/97 17:20</u>		Received by:		Date/Time			
Relinquished by:		Date/Time		Received by:		Date/Time			
Relinquished by:		Date/Time		Received by:		Date/Time			
Method of Shipment:		Date		Rush		24-48 Hours			
Authorized by:		(Client Signature Must Accompany Request)		10 Working Days		Special Instructions:			

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

6356

Page _____ of _____

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.:		Job No.		Name Dave Cox		Title					
SEND INVOICE TO	Name			Company ON SITE TECH.		Mailing Address 612 E. MURRAY DR.					
	Company		Dept.	City, State, Zip FARMINGTON, NM 87401		Telephone No. 505-325-5667					
	Address			Telefax No. 505-325-6256							
	City, State, Zip										
Sampling Location: FLORANCE 4D / JACQUES 2A											
Sampler:											
SAMPLE IDENTIFICATION		SAMPLE		MATRIX	PRES.	ANALYSIS REQUESTED					
		DATE	TIME								
FLORANCE 4D, 14501-5553		5/8/97	13:30			<div>PAH</div>					
JACQUES 2A, 14506-5554		"	11:00								
Relinquished by: Heidi Rees		Date/Time 5/8/97 17:20		Received by: S. West		Date/Time 5/12/97 0900					
Relinquished by:		Date/Time		Received by:		Date/Time					
Relinquished by:		Date/Time		Received by:		Date/Time					
Method of Shipment:				Rush		24-48 Hours					
Authorized by: _____ Date _____				10 Working Days		Special Instructions:					
(Client Signature <u>Must</u> Accompany Request)											

Distribution	White	On Site	Yellow	LAB	Pink	Sampler	Goldenrod	Client
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CHAIN OF CUSTODY RECORD

Date: 5/08/97

Page 1 of 1

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.:		Job No.		Name Maureen Gannon		Title	
SEND INVOICE TO	Name Denver Bearden		Company PNM Gas Services		Mailing Address Alverado Square, Mail Stop 0408		REPORT RESULTS TO
	Company PNM Gas Services		Dept. 324-3763		City, State, Zip Albuquerque, NM 87158		
	Address 603 W. Elm Street		City, State, Zip Albuquerque, NM 87158		Telephone No. 505-848-2974		
	City, State, Zip Farmington, NM 87401		City, State, Zip Albuquerque, NM 87158		Telefax No.		
Sampling Location: FLORENCE 40				ANALYSIS REQUESTED			
Sampler: <i>Maureen Gannon / Mark S. Korman</i>				Number of Containers			
SAMPLE IDENTIFICATION		SAMPLE		MATRIX	PRES.	LAB ID	
		DATE	TIME				
9705081330 NUC1 *				H ₂ O	HCl	3	14501-5553
140 NUC2 114				↓	↓	2	14502-5553
9705081430 NUC3				↓	↓	2	14503
9705081500 NUC4				H ₂ O	HCl	2	14504
9705081530 NUC5							
TRIP BLANK		LIR	NR	H ₂ O	HCl	1	14646-5557
⊗ SAMPLE INVALID DUE TO SHIPPING ERROR BY UPS. SEE COX #6356 TO SPL (PL) 5/13/97							
Relinquished by: <i>M/Gannon</i>		Date/Time: <i>5/08/97</i>		Received by: <i>[Signature]</i>		Date/Time: <i>5/8/97 1625</i>	
Relinquished by:		Date/Time:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Received by:		Date/Time:	
Method of Shipment:		Rush		24-48 Hours		10 Working Days	
Authorized by: _____		Date: _____		Special Instructions:		Results to be sent to both parties.	
(Client Signature Must Accompany Request)							

* "Hot" Sample

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *27-Aug-97*
COC No.: *5648*
Sample No.: *15771*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Florance Z 40*

Project Location: *9708131330; MW-1*

Sampled by: *MG/MS*

Date: *13-Aug-97* Time: *13:30*

Analyzed by: *DC*

Date: *22-Aug-97*

Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	<i>3653</i>	<i>ug/L</i>	<i>100</i>	<i>ug/L</i>
<i>Toluene</i>	<i>12785</i>	<i>ug/L</i>	<i>100</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>1160</i>	<i>ug/L</i>	<i>100</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>12819</i>	<i>ug/L</i>	<i>100</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>3372</i>	<i>ug/L</i>	<i>100</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>33789</i>	<i>ug/L</i>		

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved By: *[Signature]*
Date: *8/28/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BEHINDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *27-Aug-97*
COC No.: *5648*
Sample No.: *15810*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Florance Z 40*
Project Location: *9708131400; MW-4*
Sampled by: *MG/MS* Date: *13-Aug-97* Time: *14:00*
Analyzed by: *DC* Date: *22-Aug-97*
Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/L	1.0	ug/L
<i>Toluene</i>	ND	ug/L	1.0	ug/L
<i>Ethylbenzene</i>	ND	ug/L	1.0	ug/L
<i>m,p-Xylene</i>	ND	ug/L	1.0	ug/L
<i>o-Xylene</i>	ND	ug/L	1.0	ug/L
<i>TOTAL</i>	ND	ug/L		

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved By: *[Signature]*
Date: *8/28/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *27-Aug-97*
COC No.: *5648*
Sample No.: *15811*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Florance Z 40*
Project Location: *9708131430; MW-5*
Sampled by: *MG/MS*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *13-Aug-97* Time: *14:30*
Date: *22-Aug-97*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	<i>3683</i>	<i>ug/L</i>	<i>100</i>	<i>ug/L</i>
<i>Toluene</i>	<i>12739</i>	<i>ug/L</i>	<i>100</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>1143</i>	<i>ug/L</i>	<i>100</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>12695</i>	<i>ug/L</i>	<i>100</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>3391</i>	<i>ug/L</i>	<i>100</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>33651</i>	<i>ug/L</i>		

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved By: *Jack*
Date: *8/28/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

TECHNOLOGY SERVICES, INC. (SEPR) WITH THE FOLLOWING:

Internal QC No.: 0527-STD
Surrogate QC No.: 0528-STD
Reference Standard QC No.: 0529/30-QC

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	< 1.0	ppb

<i>Parameter</i>	<i>Unit of Measure</i>	<i>True Value</i>	<i>Analyzed Value</i>	<i>RPD</i>	<i>Limit</i>
<i>Benzene</i>	ppb	20.0	19.7	2	15%
<i>Toluene</i>	ppb	20.0	20.4	2	15%
<i>Ethylbenzene</i>	ppb	20.0	20.6	3	15%
<i>m,p-Xylene</i>	ppb	40.0	39.4	2	15%
<i>o-Xylene</i>	ppb	20.0	20.4	2	15%

<i>Parameter</i>	<i>1 - Percent Recovered</i>	<i>2 - Percent Recovered</i>	<i>Limit</i>	<i>RPD</i>	<i>Limit</i>
<i>Benzene</i>	96	91	(39-150)	3	20%
<i>Toluene</i>	100	97	(46-148)	3	20%
<i>Ethylbenzene</i>	100	97	(32-160)	3	20%
<i>m,p-Xylene</i>	96	93	(35-145)	3	20%
<i>o-Xylene</i>	99	96	(35-145)	2	20%

	S1 Percent Recovered	S2 Percent Recovered		S1 Percent Recovered	S2 Percent Recovered
Laboratory Identification			Laboratory Identification		
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
15771-5648	96				
15810-5648	97				
15811-5648	97				
				JLR 8/29/97	(ps) 8/28/97

S1: Flourobenezene

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *5-Dec-97*
COC No.: *7084*
Sample No.: *16979*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Florance Z 40*
Project Location: *9711251330; MW-1*
Sampled by: *MG/MS* Date: *25-Nov-97* Time: *13:30*
Analyzed by: *HR* Date: *3-Dec-97*
Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	<i>3942</i>	<i>ug/L</i>	<i>40</i>	<i>ug/L</i>
<i>Toluene</i>	<i>14574</i>	<i>ug/L</i>	<i>40</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>1262</i>	<i>ug/L</i>	<i>40</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>13903</i>	<i>ug/L</i>	<i>40</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>3665</i>	<i>ug/L</i>	<i>40</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>37345</i>	<i>ug/L</i>		

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved By: *[Signature]*
Date: *12/15/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *5-Dec-97*
COC No.: *7084*
Sample No.: *16980*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Florance Z 40*
Project Location: *9711251400; MW-4*
Sampled by: *MG/MS* Date: *25-Nov-97* Time: *14:00*
Analyzed by: *HR* Date: *3-Dec-97*
Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/L	0.2	ug/L
<i>Toluene</i>	ND	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	ND	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	ND	ug/L	0.2	ug/L
<i>o-Xylene</i>	ND	ug/L	0.2	ug/L
<i>TOTAL</i>	ND	ug/L		

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved By: *[Signature]*
Date: *12/5/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *5-Dec-97*
COC No.: *7084*
Sample No.: *16981*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Florance Z 40*
Project Location: *9711251430; MW-5*
Sampled by: *MG/MS*
Analyzed by: *HR*
Sample Matrix: *Liquid*

Date: *25-Nov-97* Time: *14:30*
Date: *3-Dec-97*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/L	0.2	ug/L
<i>Toluene</i>	ND	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	ND	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	ND	ug/L	0.2	ug/L
<i>o-Xylene</i>	ND	ug/L	0.2	ug/L
<i>TOTAL</i>	ND	ug/L		

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved By: *[Signature]*
Date: *12/5/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

Internal QC No.: 0559-STD
Surrogate QC No.: 0556-STD
Reference Standard QC No.: 0529/30-QC

Parameter	Result	Unit of Measure
Average Amount of All Analytes in Blank	<0.2	ppb

<i>Parameter</i>	<i>Unit of Measure</i>	<i>True Value</i>	<i>Analyzed Value</i>	<i>RPD</i>	<i>Limit</i>
<i>Benzene</i>	ppb	20.0	19.3	3	15%
<i>Toluene</i>	ppb	20.0	20.2	1	15%
<i>Ethylbenzene</i>	ppb	20.0	20.4	2	15%
<i>m,p-Xylene</i>	ppb	40.0	39.6	1	15%
<i>o-Xylene</i>	ppb	20.0	20.3	1	15%

<i>Parameter</i>	<i>1 - Percent Recovered</i>	<i>2 - Percent Recovered</i>	<i>Limit</i>	<i>RPD</i>	<i>Limit</i>
<i>Benzene</i>	131	100	(39-150)	2	20%
<i>Toluene</i>	106	101	(46-148)	2	20%
<i>Ethylbenzene</i>	102	91	(32-160)	2	20%
<i>m,p-Xylene</i>	93	89	(35-145)	2	20%
<i>o-Xylene</i>	98	95	(35-145)	2	20%

	S1 Percent Recovered	S2 Percent Recovered		S1 Percent Recovered	S2 Percent Recovered
Laboratory Identification			Laboratory Identification		
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
16979-7084	94				
16980-7084	94				
16981-7084	94				
				JMR 12/8/97	DE 12/5/97



CHAIN OF CUSTODY RECORD

Date: 11/25/97

Page: 1 of 1

612 E. Murphy Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.:		Job No.		REPORT RESULTS TO	Name Maureen Gannon		Title																		
SEND INVOICE TO	Name Denver Bearden				Company PNM Gas Services																				
	Company PNM Gas Services		Dept. 324-3763		Mailing Address Alverado Square, Mail Stop 0408																				
	Address 603 W. Elm Street				City, State, Zip Albuquerque, NM 87158		Telephone No. 505-848-2974		Telefax No.																
	City, State, Zip Farmington, NM 87401																								
Sampling Location: FLORENCE Z 40				Number of Containers	ANALYSIS REQUESTED																				
Sampler: M Gannon / M Sikanos					<div style="text-align: center;">B248000</div>																				
SAMPLE IDENTIFICATION																		SAMPLE		MATRIX		PRES.		LAB ID	
DATE		TIME																							
9711251330		MW1																11/25/97		H2O HCL		2		X	
9711251400		MW4		11/25/97		H2O HCL		2		X		16980-1													
9711251430		MW5		11/25/97		H2O HCL		2		X		1698X-1													
Relinquished by: <u>Maureen Gannon</u>				Date/Time <u>11/25/97</u>		Received by: <u>[Signature]</u>				Date/Time <u>11/25/97 1526</u>															
Relinquished by:				Date/Time		Received by:				Date/Time															
Relinquished by:				Date/Time		Received by:				Date/Time															
Method of Shipment:				Rush		24-48 Hours		10 Working Days		Special Instructions:															
Authorized by: <u>Maureen Gannon</u> Date <u>11/25/97</u> (Client Signature Must Accompany Request)										Results to be sent to both parties.															

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *2-Feb-98*
COC No.: *7137*
Sample No.: *17405*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Florance 40*
Project Location: *9801231230; MW-1*
Sampled by: *MS/RD* Date: *23-Jan-98* Time: *12:30*
Analyzed by: *DC* Date: *27-Jan-98*
Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	<i>4421</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>Toluene</i>	<i>15035</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>1181</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>15143</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>4041</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>39821</i>	<i>ug/L</i>		

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved By: *[Signature]*
Date: *2/2/98*

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *2-Feb-98*
COC No.: *7137*
Sample No.: *17406*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Florance 40*
Project Location: *9801231300; MW-4*
Sampled by: *MS/RD* Date: *23-Jan-98* Time: *13:00*
Analyzed by: *DC* Date: *27-Jan-98*
Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/L	0.2	ug/L
<i>Toluene</i>	ND	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	ND	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	ND	ug/L	0.2	ug/L
<i>o-Xylene</i>	ND	ug/L	0.2	ug/L
<i>TOTAL</i>	ND	ug/L		

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved By: *[Signature]*
Date: *2/4/98*

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *2-Feb-98*
COC No.: *7137*
Sample No.: *17407*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Florance 40*
Project Location: *9801231330; MW-5*
Sampled by: *MS/RD* Date: *23-Jan-98* Time: *13:30*
Analyzed by: *DC* Date: *27-Jan-98*
Sample Matrix: *Liquid*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	<i>4299</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>Toluene</i>	<i>14477</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>1120</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>14399</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>3882</i>	<i>ug/L</i>	<i>20</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>38178</i>	<i>ug/L</i>		

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved By: *JAG*
Date: *2/2/98*

P.O. BOX 2606 • FARMINGTON, NM 87499

Internal QC No.: 0559-STD
Surrogate QC No.: 0567-STD
Reference Standard QC No.: 0529/30-QC

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	< 0.2	ppb

<i>Parameter</i>	<i>Unit of Measure</i>	<i>True Value</i>	<i>Analyzed Value</i>	<i>RPD</i>	<i>Limit</i>
<i>Benzene</i>	ppb	20.0	21.3	6	15%
<i>Toluene</i>	ppb	20.0	21.3	6	15%
<i>Ethylbenzene</i>	ppb	20.0	21.6	8	15%
<i>m,p-Xylene</i>	ppb	40.0	41.1	3	15%
<i>o-Xylene</i>	ppb	20.0	21.5	7	15%

<i>Parameter</i>	<i>1 - Percent Recovered</i>	<i>2 - Percent Recovered</i>	<i>Limit</i>	<i>RPD</i>	<i>Limit</i>
<i>Benzene</i>	111	103	(39-150)	4	20%
<i>Toluene</i>	119	102	(46-148)	4	20%
<i>Ethylbenzene</i>	110	105	(32-160)	4	20%
<i>m,p-Xylene</i>	110	100	(35-145)	4	20%
<i>o-Xylene</i>	111	105	(35-145)	3	20%

	S1 Percent <i>Laboratory Identification</i> <i>Recovered</i>	S2 Percent <i>Laboratory Identification</i> <i>Recovered</i>		S1 Percent <i>Laboratory Identification</i> <i>Recovered</i>	S2 Percent <i>Laboratory Identification</i> <i>Recovered</i>
<i>Limit Percent Recovered</i>	(70-130)		<i>Limit Percent Recovered</i>	(70-130)	
17405-7137	100				
17406-7137	101				
17407-7137	101				
				JHC 2/3/98	H 2/2/98

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